Claim Amendments

Please amend claims 1, 5, 9, and 15-20 as follows:

Listing of Claims

- 1. (currently amended) A water purification system for purifying wastewater with a two step pH increase configuration, comprising:
- an ion exchange unit for removing both positive and negative ions from the wastewater;
- a base dosing system provided in fluid communication with said ion exchange unit for raising a pH of the wastewater <u>in</u> a first step of said two stage pH increase configuration; and
- a high-efficiency reverse osmosis system provided in fluid communication with said base dosing system for <u>further</u> removing ions from the wastewater <u>and raising the pH of the wastewater in a second step of said two step pH increase configuration.</u>
- 2. (original) The water purification system of claim 1 wherein said base dosing system comprises a base dispensing tank for containing a base solution and a dispensing device extending from said base dispensing tank for dispensing the base solution into the wastewater.

- 3. (original) The water purification system of claim 1 wherein said ion exchange unit comprises a tank and an ion exchange resin bed provided in said tank.
- 4. (original) The water purification system of claim 3 wherein said base dosing system comprises a base dispensing tank for containing a base solution and a dispensing device extending from said base dispensing tank for dispensing the base solution into the wastewater.
- 5. (currently amended) The water purification system of claim 1 wherein said high-efficiency reverse osmosis system comprises at least one first stage filter membrane and at least one second stage filter membrane provided in fluid communication with said base dosing system.
- 6. (original) The water purification system of claim 5 wherein said base dosing system comprises a base dispensing tank for containing a base solution and a dispensing device extending from said base dispensing tank for dispensing the base solution into the wastewater.
- 7. (original) The water purification system of claim 5 wherein

said ion exchange unit comprises a tank and an ion exchange resin bed provided in said tank.

- 8. (original) The water purification system of claim 7 wherein said base dosing system comprises a base dispensing tank for containing a base solution and a dispensing device extending from said base dispensing tank for dispensing the base solution into the wastewater.
- 9. (currently amended) A water purification system for purifying wastewater with a two step pH increase configuration, comprising:

an ion exchange unit for removing both positive and negative ions from the wastewater;

- a base dosing system comprising at least three first stage membranes and a second stage membrane provided in fluid communication with said ion exchange unit for raising a pH of the wastewater in a first step of said two step pH increase configuration; and
- a high-efficiency reverse osmosis system <u>comprising at</u>

 least one first stage and at <u>least one second stage filter</u>

membranes provided in fluid communication with said base dosing system for <u>further</u> removing ions from the wastewater <u>and further</u> increasing said pH in a second step of said two step pH increase configuration;

wherein said base dosing system is in fluid communication
with a fluid communication line connecting said ion exchange unit
to said high-efficiency reverse osmosis system.

- 10. (original) The water purification system of claim 9 wherein said base dosing system comprises a base dispensing tank for containing a base solution and a dispensing device extending from said base dispensing tank for dispensing the base solution into the wastewater.
- 11. (original) The water purification system of claim 9 wherein said ion exchange unit comprises a tank and an ion exchange resin bed provided in said tank.
- 12. (original) The water purification system of claim 11 wherein said base dosing system comprises a base dispensing tank for containing a base solution and a dispensing device extending from said base dispensing tank for dispensing the base solution into

the wastewater.

- 13. (original) The water purification system of claim 11 further comprising a plurality of inlet nozzles provided above said ion exchange resin bed for distributing the wastewater onto said ion exchange resin bed and a plurality of outlet nozzles provided beneath said ion exchange resin bed for distributing the wastewater from said tank.
- 14. (original) The water purification system of claim 13 wherein said base dosing system comprises a base dispensing tank for containing a base solution and a dispensing device extending from said base dispensing tank for dispensing the base solution into the wastewater.
- 15. (currently amended) A method of purifying wastewater with a two step pH increase process, comprising the steps of:

providing an ion exchange unit <u>for removing both</u>

<u>negative and positive ions from a feed comprising said</u>

<u>wastewater;</u>

providing a high-efficiency reverse osmosis system in

fluid communication with said ion exchange unit;

distributing the wastewater through said ion exchange unit to produce a first effluent wastewater;

raising the pH of the <u>first effluent</u> wastewater <u>in a</u> first step of said two step pH increase process; and

raising the pH of the <u>first effluent</u> wastewater <u>by</u>

<u>producing a second effluent wastewater from the first effluent</u>

<u>wastewater</u> in a second step <u>of said two step pH increase process</u>

<u>by distributing the <u>first effluent wastewater</u> through <u>said a</u>

<u>high-efficiency reverse osmosis system.</u></u>

- 16. (currently amended) The method of claim 15 wherein said raising the pH of the water in a first step comprises raising the pH of the water from a pH of about 3 to 4 to a pH of about 6 to 7.
- 17. (currently amended) The method of claim 16 wherein said raising the pH of the water in a second step comprises raising the pH of the water from said pH of about 6 to 7 to a pH of about 8.5 to 10.

18. (currently amended) The method of claim 15 wherein said raising the pH of the wastewater in a first step comprises:

providing an inlet line between and in fluid communication with and fluidly connecting said ion exchange unit and to said high-efficiency reverse osmosis system,

providing a base dosing system in fluid communication with said inlet line,

distributing the <u>first effluent</u> wastewater through said inlet line, and dispensing a base from said base dosing system into said inlet line.

- 19. (currently amended) The method of claim 18 wherein said raising the pH of the water in a first step comprises raising the pH of the water from a pH of about 3 to 4 to a pH of about 6 to 7.
- 20. (currently amended) The method of claim 19 wherein said raising the pH of the water in a second step comprises raising the pH of the water from said pH of about 6 to 7 to a pH of about

8.5 to 10.